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DAAC M&O LAN COTS Hardware/Software Implementation for the ECS Project

White Paper

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Abstract

This document supplies an overview of the Maintenance and Operations DAAC COTS hardware and software procurement procedures that will be implemented during the ECS Extension Period and through EMD.

Keywords: GSFC, LaRC, NSIDC, LP DAAC, COTS, Software, Hardware.

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Abstract

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1. Introduction

1.1 Purpose

The purpose of this document is to establish the procedures used to request, procure, and implement COTS HW and SW used by GSFC, SMC, LaRC, NSIDC, and LP DAAC staff on the M&O LAN to monitor, analyze, report, and manage operational HW and SW.

1.2 Organization

This paper is organized as follows:

- Section 2: Related Documents
- Section 3: Procedures for Adding COTS H/W or S/W to an ECS DAAC M&O LAN
- Section 4: Abbreviations and Acronyms

1.3 Authorization

This White Paper specifies the process to be followed by the ECS contractor and the respective local DAAC contractors when changes to the M&O LAN (hereafter referred to as the LAN) are determined necessary. It is designed to ensure contractual compliance with regard to Configuration Management of the LAN and orderly execution of contractual responsibilities. It is authorized by the ECS M&O Director and is applicable during the ECS Extension period and into the EMD contract.

Questions regarding technical information contained within this Paper should be addressed to the following ECS contacts:

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1.4 Contract Term Defined

At the conclusion of the ECS contract, 31 October 2002, Raytheon was authorized by NASA to continue ECS support for a period known as the ECS Extension. The ECS Extension is authorized from 1 November 2002 through 28 February 2003, with up to eight one-month extensions. This period will conclude with NASA's determination and award of the EMD (EOSDIS Maintenance and Development) contract. The table below details the Extension period:

11/01/2002 through 02/28/2003	Initial ECS Extension Period
03/01/2003 through 03/31/2003	* Optional
04/01/2003 through 04/30/2003	* Optional
05/01/2003 through 05/31/2003	* Optional
06/01/2003 through 06/30/2003	* Optional
07/01/2003 through 07/31/2003	* Optional
08/01/2003 through 08/30/2003	* Optional
09/01/2003 through 09/30/2003	* Optional
10/01/2003 through 10/31/2003	* Optional
* The EMD can/will be awarded by NASA during any of the Optional Months	

2. Related Documentation

2.1 Parent Documents

The parent documents are the documents from which this document's scope and content are derived.

840-TP-001 EDC* DAAC M&O Equipment (As-Built Configuration)

840-TP-002 GSFC DAAC and SMC M&O Equipment (As-Built Configuration)

840-TP-003 NSIDC DAAC M&O Equipment

840-TP-004 LaRC DAAC M&O Equipment (As-Built Configuration)

*NOTE: EDC is now known as the LP DAAC (effective Summer 2002)

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3. Configuration Management and Control of ECS DAAC M&O LAN COTS H/W and S/W

3.1 Defining Changes to the DAAC M&O LAN

This document will address two scenarios regarding changes to the LAN:

Scenario 1

- Procurement and Addition of New H/W and/or S/W (and Respective Licenses)

Scenario 2

- Relocation of H/W and/or S/W from Established Baseline (and Respective Licenses)
- Removal or Retirement of Existing H/W and/or S/W (and Respective Licenses)

NOTE: The ECS M&O Systems Engineer will coordinate with each DAAC the establishment and documentation of the existing "as built" Baseline for the LAN.

3.2 LAN Change Process

3.2.1 Additions to LAN

As defined above in Scenario 1, when it is necessary to make additions to the LAN for either H/W or S/W, the group initiating the change (either the ECS contractor or the DAAC) will complete a CCR for approval by ESDIS for the procurement. The ECS contractor will notify the affected DAAC(s) concerning disposition of the CCR and coordinate delivery and update requisite documentation.

Submission of the CCR will include detailed answers to the following questions:

- What is the function of the requested H/W or S/W?
- What is the equipment model, operating system or application version
- Are there any anticipated pre-installed service packs and patch levels.
- Does the system need to communicate with systems outside the DAAC (local M&O & DAAC network)?
- If applicable, what are the LAN data throughput requirements that may be affected by this addition?

This information will provide ECS M&O Engineering with the necessary information to review the impact of adding the requested additional hardware to the LAN network. Review by ECS M&O Engineering will include the following assessment:

- Network Constraints
- Computer Security Issues (Must conform with NASA mandated requirements)
- Property Management
- Electrical Power Requirements and Coordination
- Cooling Requirements
- Physical Location of Equipment

Responsible Engineer in each of these areas will be consulted prior to CCR approval.

3.2.2 Relocating or Removing LAN HW/SW Server/License

As defined above in Scenario 2, if the ECS contractor determines it necessary to relocate or remove LAN H/W or S/W, e.g., a server or server license, the ECS contractor will complete a CCR and upon approval will coordinate changes with the affected DAAC(s).

3.2.3 Relocating or Removing LAN HW/SW Software

As defined in Scenario 2, if a DAAC needs to relocate or remove LAN H/W or S/W, e.g., a desktop PC or a software application (MS Project), the DAAC is authorized to initiate actions as determined necessary without prior ECS contractor CCR/CCB approval; however, these changes must be reported to the ECS contractor via a CCR in a timely manner. A timely manner is hereby defined as at least once per month. Therefore, any changes to the LAN that involve relocation or removal of H/W or S/W that change the established LAN baseline will be reported to the ECS contractor via CCR to ensure update and currency of the ECS contractor's documentation.

4. Discrepancies

The ECS contractor will conduct periodic audits of the LAN as determined appropriate. Identification of discrepancies to the established baseline will be documented. Resolution of documented discrepancies may result in either a CCR to update the baseline or the reversion of identified LAN discrepancies, e.g., unauthorized H/W attached to the LAN would be removed.

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